University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: 4

Date: Aug, 5, 2024

Group Number: 26

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

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2) Description

For this project we are proposing a user database for an MMORPG (massive multiplayer online role playing game) similar in scale and scope to well known titles like "the world of warcraft" and "final fantasy online". In theory this would mean that the database would be responsible for the player data of 10,000,000+ player accounts as well as the inventory status and ranking of any characters created under a player account. As such the project would fall under the domains of Entertainment/Gaming, User/Account management, Inventory tracking, and leaderboard tracking.

3) The updated ER diagram
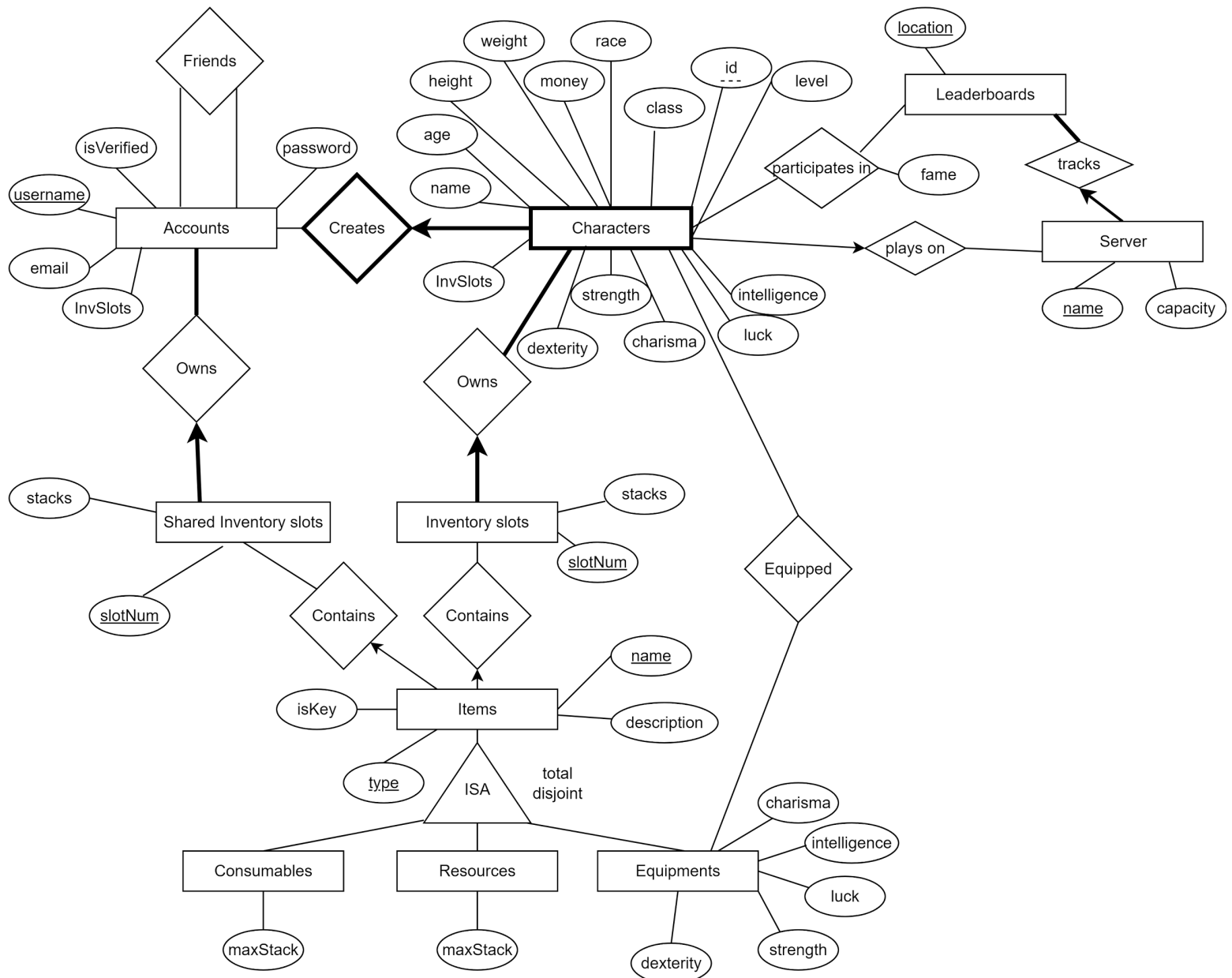
Our ER diagram differs significantly from milestone 2, we have removed the global leaderboard entity after realizing that it should have been represented by an aggregation on the local leaderboard table, we also cleared up the ambiguity of what the local leaderboard table represents by splitting the ternary relationship into 3 binary relationships. The inventory and shared inventory have also been cleaned up, the has access relationship between the characters and shared inventory relationship was redundant because characters is a weak entity of accounts and should have access regardless. Accounts and characters are now in a one to one

relationship with their inventories, the type attribute was moved to the items entity as it was ruining the isa constraint as it needed to be unique and referenced in the equipped relationship, all items now have subtypes beyond consumables, resources and equipment. redundant primary keys like the cid and userId in the 2 inventories were removed as they are represented by foreign keys in the schema. We also changed the primary keys of the leaderboards and server tables after working through the schema and deciding that the server name could be primary if the leaderboard tracks specific locations for the server.
Melissa gave us a pass and let us use 9 relationships and 6 entities because we made the decision to remove the global leaderboard entity and 2 more relationships to better describe the leaderboards entity late into the project. It didn't affect our overall number of tables, and our project is particularly unique.

4)The Updated Schema:

Table Name	Attributes	Constraints
Accounts	username:VARCHAR(20), password:VARCHAR(20), email:VARCHAR(320), isVerified:BOOL InvSlots: INT	username is PK, email is UNIQUE and NOT NULL, password, invSlots is NOT NULL, invSlots DEFAULT is 150
Friends	user:VARCHAR(20), friend:VARCHAR(20)	user, friend is PK, user and friend are FK referencing accounts username ON CASCADE DELETE
Characters	ID:CHAR(20), AccUser: VARCHAR(20), name:VARCHAR(20), ServerName:VARCHAR(20) class:VARCHAR(20), age:INT(2), height:INT(3), weight: INT(3), race:VARCHAR(20), strength: INT(5), intelligence:INT(5), charisma:INT(5), dexterity:INT(5), luck:INT(5), level: int(5), money: INT(15), InvSlots:INT(2)	ID and AccUser are PK AccUser is FK to Account's Username On Delete Cascade, ServerName, is FK to Servers name name, class, age, height, weight,race, level, money, strength, intelligence, charisma, dexterity, luck, InvSlots are all NOT NULL strength, intelligence, charisma, dexterity, luck, level DEFAULT is 1 money DEFAULT is 0 invSlots DEFAULT is 50

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Equipped	AccUser: VARCHAR(20), CID:CHAR(20), EqName:VARCHAR(20), EqType:VARCHAR(20)	EqName, EqType, CID, AccUser are PK CID,AccUser is FK to character's ID,AccUser ON DELETE CASCADE EqName,EqType are FK referencing equipments Name,Type ON UPDATE CASCADE and ON DELETE CASCADE EqType is not null
InventorySlots	CID:CHAR(20), AccUser: VARCHAR(20), slotNum:INT(3), stacks:INT(4), itemName: VARCHAR(20), itemType:VARCHAR(20)	CID,AccUser, slotNum is PK CID, AccUser is FK to character's ID,AccUser Cascade ON Delete itemName, itemType is FK to item's name, type stacks DEFAULT = 1, slotNum is unique
SharedInventory Slots	AccUser:VARCHAR(20), slotNum:INT(3), stacks:INT(4), itemName: VARCHAR(20), itemType:VARCHAR(20)	AccUser, slotNum is PK AccUser is FK referencing Account's Username, ON Delete Cascade, itemName, itemType is FK to item's name, type stacks DEFAULT = 1, slotNum is unique
Items	name:VARCHAR(20), type:VARCHAR(20), isKey:BOOL(), description: MEDIUMTEXT()	name, type is PK isKey DEFAULT is 0
Consumables	itemName:VARCHAR(20), itemType:VARCHAR(20), maxStack:int(2)	itemName, itemType is PK and FK to items name, type ON DELETE CASCADE ON UPDATE CASCADE

Equipments	itemName:VARCHAR(20), itemType:VARCHAR(20), strength: INT(5), intelligence:INT(5), charisma:INT(5), dexterity:INT(5), luck:INT(5),	itemName, itemType is PK and FK to items name, type ON DELETE CASCADE ON UPDATE CASCADE
Resources	itemName:VARCHAR(20), itemType:VARCHAR(20), maxStack:int(2)	itemName, itemType is PK and FK to items name, type ON DELETE CASCADE ON UPDATE CASCADE
LeaderBoards	Location: VARCHAR(20)	Location is PK
Participates	AccUser:CHAR(20), CID:CHAR(20), boardLoc:CHAR(20), fame:INT	AccUser, CID, boardLoc are PK, CID is FK to characters id ON DELETE CASCADE, boardLoc is FK leaderboards location
Servers	name:VARCHAR(20), location:VARCHAR(20), capacity:INT(6)	name is PK location is FK to leaderboards location

Additional constraints to consider, not modeled by ER diagram:
- an account can be unverified but a character cannot be created until an account is verified
- must check and decrement character/Account Inv slots before inserting into Inventory/sharedInventory or increment when deleting rows the slots should reflect how many spaces of inventory the character has in some way whether that's a counter or checked against slotNum.
- a single leaderboard represents the rankings for a single server location, ie. EU, US, CHN, KOR, not the individual servers ie. KOR - server1, KOR - server2 etc.
- a character belongs to only one server at a time, but is able to switch servers and accumulate fame local to that server's location.

Other notes:
- I initially planned to have location data for servers be on the server entity but after redesigning it became easier to represent the relationship of a leaderboard being unique to a server location but not server name by setting the location as the PK of the leaderboard table and referencing that in the servers table, at which point the leaderboard id became redundant.

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5) Database table screenshots:

ACCOUNTS [@dbhost.students.cs.ubc.ca [2]]

	USERNAME	ISVERIFIED	PASSWORD	EMAIL	INVSLOTS
1	admin	1	admin	123@fake.com	150
2	test	1	test	11@fake.ca	150
3	friend1	1	test	12@fake.ca	150
4	friend2	0	test	31@fake.ca	150
5	andrew	1	password	andrew@gmail.com	150

CHARACTERS [@dbhost.students.cs.ubc.ca [2]]

	ID	ACC_USER	NAME	CLASS	AGE	HEIGHT	WEIGHT	RACE	LVL	MONEY	STRENGTH	INTELLIGENCE	CHARISMA	DEXTERITY
1	TEST1	test	char_mage	mage	20	185	90	human	10	0	7	30	15	
2	TEST2	test	char_warrior	warrior	200	230	60	elf	50	0	85	15	20	
3	TEST3	test	char_pirate	pirate	95	90	150	dwarf	28	0	20	15	38	
4	TEST4	test	char_mage	mage	26	150	100	human	89	0	10	232	54	
5	TEST5	test	char_thief	thief	26	150	100	human	36	0	32	15	67	
6	ADMIN1	admin	char_mage	mage	26	170	85	human	15	0	7	48	15	
7	ADMIN2	admin	char_warrior	warrior	94	223	62	elf	37	0	74	15	18	
8	ADMIN3	admin	char_pirate	pirate	64	84	142	dwarf	32	0	34	15	45	
9	ADMIN4	admin	char_mage	mage	26	150	100	halfling	74	0	10	202	54	
10	ADMIN5	admin	char_warrior	warrior	38	144	86	human	38	0	82	15	46	
11	FRIEND11	friend1	maggie	warrior	65	154	79	human	21	0	85	10	20	
12	FRIEND12	friend1	warren	pirate	200	230	60	elf	42	0	24	15	46	
13	FRIEND13	friend1	pete	thief	95	90	150	dwarf	28	0	20	15	38	
14	FRIEND14	friend1	miran	mage	26	150	100	halfling	91	0	10	248	54	
15	FRIEND15	friend1	thomas	thief	26	150	100	human	41	0	32	15	67	
16	FRIEND21	friend2	jerry	mage	66	165	78	human	15	0	7	32	15	
17	FRIEND22	friend2	morty	mage	154	240	55	elf	34	0	15	72	20	
18	FRIEND23	friend2	rick	mage	50	89	135	dwarf	56	0	20	124	67	
19	FRIEND24	friend2	summer	mage	22	130	75	halfling	72	0	10	268	54	
20	FRIEND25	friend2	beth	mage	36	125	91	human	105	0	32	342	102	
21	ANDREW1	andrew	bob	pirate	18	192	88	human	16	0	9	8	37	
22	ANDREW2	andrew	linda	warrior	134	222	62	elf	34	0	85	15	20	
23	ANDREW3	andrew	louis	pirate	81	81	181	dwarf	75	0	20	15	154	
24	ANDREW4	andrew	gene	pirate	68	132	34	halfling	94	0	10	16	241	
25	ANDREW5	andrew	tina	thief	22	162	94	human	109	0	32	15	302	

CHARACTERS [@dbhost.students.cs.ubc.ca [2]]

HEIGHT	WEIGHT	RACE	LVL	MONEY	STRENGTH	INTELLIGENCE	CHARISMA	DEXTERITY	LUCK	INVSLOTS	SERVERNAME
185	90	human	10	0	7	30	15	8	15	50	US_W_america_1
230	60	elf	50	0	85	15	20	40	15	50	US_E_america_1
90	150	dwarf	28	0	20	15	38	18	30	50	US_W_america_1
150	108	human	89	0	10	232	54	15	80	50	US_E_america_1
150	100	human	36	0	32	15	67	69	68	50	US_W_america_1
170	85	human	15	0	7	48	15	8	15	50	KOR_korea_1
223	62	elf	37	0	74	15	18	38	15	50	KOR_korea_1
84	142	dwarf	32	0	34	15	45	18	34	50	KOR_korea_1
150	100	halfling	74	0	10	202	54	15	62	50	CHN_china_1
144	86	human	38	0	82	15	46	48	57	50	CHN_china_1
154	79	human	21	0	85	10	20	62	15	50	EU_europe_1
230	60	elf	42	0	24	15	46	56	84	50	EU_europe_1
90	150	dwarf	28	0	20	15	38	18	75	50	US_E_america_1
150	100	halfling	91	0	10	248	54	15	80	50	US_E_america_1
150	100	human	41	0	32	15	67	69	87	50	EU_europe_1
165	78	human	15	0	7	32	15	8	15	50	CHN_china_1
240	55	elf	34	0	15	72	20	12	15	50	CHN_china_1
89	135	dwarf	56	0	20	124	67	25	30	50	CHN_china_1
130	75	halfling	72	0	10	268	54	12	80	50	CHN_china_1
125	91	human	105	0	32	342	102	42	62	50	CHN_china_1
192	88	human	16	0	9	8	37	8	18	50	US_W_america_1
222	62	elf	34	0	85	15	20	40	15	50	US_W_america_1
81	181	dwarf	75	0	20	15	154	34	64	50	US_W_america_1
132	34	halfling	94	0	10	16	241	84	80	50	US_W_america_1
162	94	human	109	0	32	15	302	89	68	50	US_W_america_1

CONSUMABLES [@dbhost.students.cs.ubc.ca [2]] — 5 rows

ITEMNAME	ITEMTYPE	MAXSTACK
1 health potion (sm)	potion	99
2 stamina potion (sm)	potion	99
3 mana potion (sm)	potion	99
4 beefy jerky	food	50
5 potion of swiftness	potion	10

EQUIPMENTS [@dbhost.students.cs.ubc.ca [2]] — 5 rows

ITEMNAME	ITEMTYPE	STRENGTH	INTELLIGENCE	CHARISMA	DEXTERITY	LUCK
1 basic helmet	head	5	0	0	0	0
2 apprentices hat	head	0	5	0	0	0
3 leather tunic	chest	1	1	1	1	1
4 leather gloves	hand	1	1	1	1	1
5 leather boots	foot	1	1	1	1	1

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EQNAME	CID	ACC_USER	EQTYPE
basic helmet	ADMIN1	admin	head
basic helmet	ANDREW1	andrew	head
basic helmet	TEST1	test	head
basic helmet	TEST2	test	head
leather boots	ADMIN1	admin	foot
leather boots	ADMIN2	admin	foot
leather boots	ANDREW1	andrew	foot
leather boots	ANDREW5	andrew	foot
leather boots	TEST1	test	foot
leather boots	TEST2	test	foot
leather gloves	ADMIN2	admin	hand
leather gloves	ANDREW1	andrew	hand
leather gloves	TEST1	test	hand
leather gloves	TEST2	test	hand
leather tunic	ADMIN2	admin	chest
leather tunic	ANDREW1	andrew	chest
leather tunic	TEST1	test	chest
leather tunic	TEST2	test	chest

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USERNAME	FRIEND
andrew	friend1
friend1	andrew
friend1	test
friend2	test
test	friend1
test	friend2

Project aseSetup.sql   FRIENDS [@dbhost.students.cs.ubc.ca [2]] ×

6 rows   Tx: Manual

WHERE   ORDER BY

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FRIENDS [@dbhost.students.cs.ubc.ca [2]]
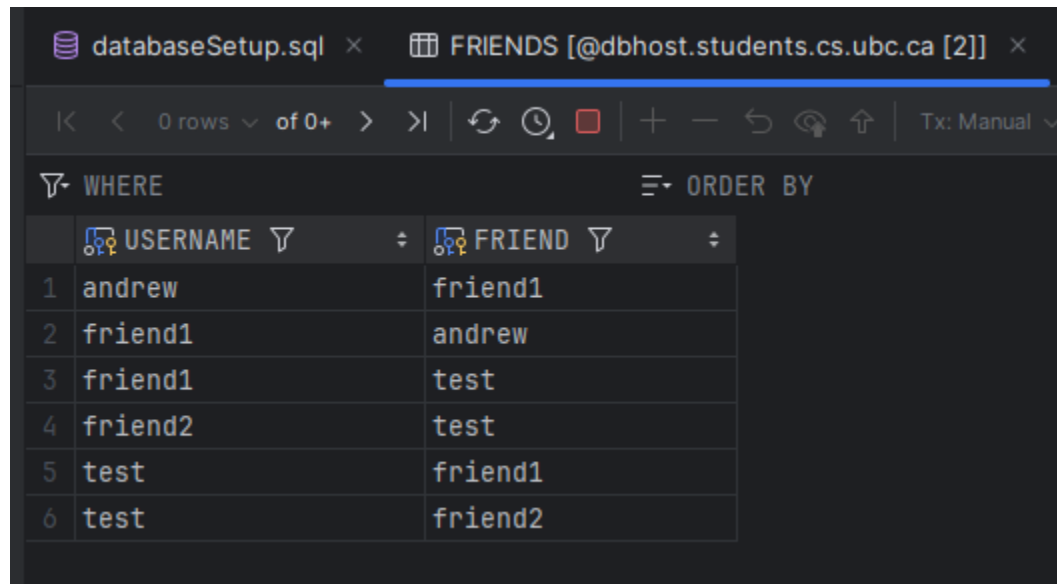
	USERNAME	FRIEND
1	andrew	friend1
2	friend1	andrew
3	friend1	test
4	friend2	test
5	test	friend1
6	test	friend2

INVENTORY [@dbhost.students.cs.ubc.ca [2]]

	CID	ACC_USER	SLOTNUM	STACKS	ITEMNAME	ITEMTYPE
1	TEST1	test	1	1	basic helmet	head
2	TEST1	test	2	1	health potion (sm)	potion
3	TEST1	test	3	1	wood	raw_material
4	TEST1	test	4	1	leather boots	foot
5	TEST1	test	5	1	leather boots	foot

ITEMS [@dbhost.students.cs.ubc.ca [2]]

	NAME	TYPE	ISKEY	DESCRIPTION
1	health potion (sm)	potion	0	a potion that restores a small amount of health.
2	stamina potion (sm)	potion	0	a potion that restores a small amount of stamina.
3	mana potion (sm)	potion	0	a potion that restores a small amount of mana.
4	beefy jerky	food	0	a small piece of beef jerky, restores a small amount of health and stamina
5	potion of swiftness	potion	0	a magical potion which imbues the user with tremendous speed
6	wood	raw_material	0	a stack of wood, used for crafting.
7	stone	raw_material	0	a stack of stone material used for crafting.
8	iron ore	raw_ore	0	raw pieces of iron excavated from the mountains, can be smelted into iron ba…
9	iron bars	raw_metal	0	ingots made of solid iron, can be used to craft equipment.
10	string	raw_material	1	string made from various fibers, useful for crafting clothes.
11	basic helmet	head	0	A basic helmet worn by beginner warriors.
12	apprentices hat	head	0	The worn hat of a wizards apprentice.
13	leather tunic	chest	0	simple leather tunic, worthy of a beginner adventurer!
14	leather gloves	hand	0	simple leather gloves, perfect for a beginner adventurer!
15	leather boots	foot	0	simple leather boots, ideal for a beginner adventurer.

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26 rows ∨   + —   Tx: Manual ∨ ✓ ↺   DDL Q

WHERE   ORDER BY

	CID	ACC_USER	BOARDLOC	FAME
1	TEST1	test	US_WEST	2
2	TEST2	test	US_EAST	70
3	TEST3	test	US_WEST	30
4	TEST4	test	US_EAST	150
5	TEST4	test	US_WEST	150
6	TEST5	test	US_WEST	64
7	ADMIN1	admin	KOR	2
8	ADMIN2	admin	KOR	70
9	ADMIN3	admin	KOR	30
10	ADMIN4	admin	CHN	150
11	ADMIN5	admin	CHN	64
12	FRIEND11	friend1	EU	2
13	FRIEND12	friend1	EU	70
14	FRIEND13	friend1	US_EAST	30
15	FRIEND14	friend1	US_EAST	150
16	FRIEND15	friend1	EU	64
17	FRIEND21	friend2	CHN	2
18	FRIEND22	friend2	CHN	70
19	FRIEND23	friend2	CHN	30
20	FRIEND24	friend2	CHN	150
21	FRIEND25	friend2	CHN	64
22	ANDREW1	andrew	US_WEST	2
23	ANDREW2	andrew	US_WEST	70
24	ANDREW3	andrew	US_WEST	30
25	ANDREW4	andrew	US_WEST	150
26	ANDREW5	andrew	US_WEST	64

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databaseSetup.sql × ⊞ RESOURCES [@dbhost.students.cs.ubc.ca [2]] × ⊞ SER

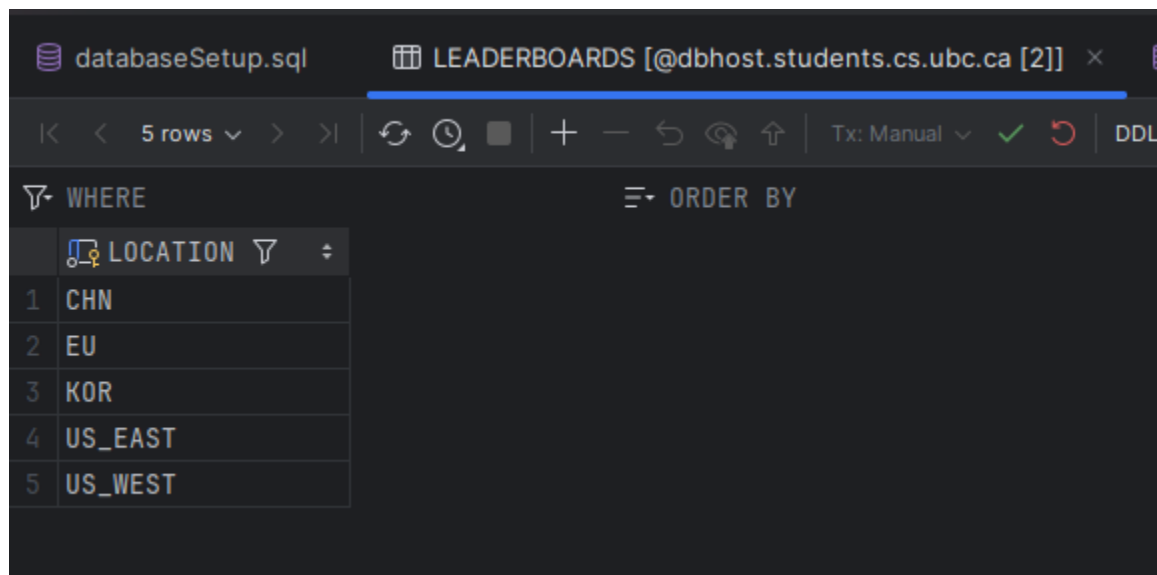5 rows ∨ | Tx: Manual ∨ ✓ ↺ | DDL

WHERE ORDER BY

	ITEMNAME	ITEMTYPE	MAXSTACK
1	wood	raw_material	99
2	stone	raw_material	99
3	iron ore	raw_ore	99
4	iron bars	raw_metal	30
5	string	raw_material	99

databaseSetup.sql × ⊞ SERVERS [@dbhost.students.cs.ubc.ca [2]] × ⊞

6 rows ∨ | Tx: Manual ∨ ✓ ↺

WHERE ORDER BY

	NAME	LOCATION	CAPACITY
1	US_W_america_1	US_WEST	10000
2	US_W_america_2	US_WEST	10000
3	US_E_america_1	US_EAST	10000
4	EU_europe_1	EU	5000
5	CHN_china_1	CHN	15000
6	KOR_korea_1	KOR	15000

databaseSetup.sql ⊞ SHAREDINVENTORY [@dbhost.students.cs.ubc.ca [2]] × testingGrounds.sql databsepopulat
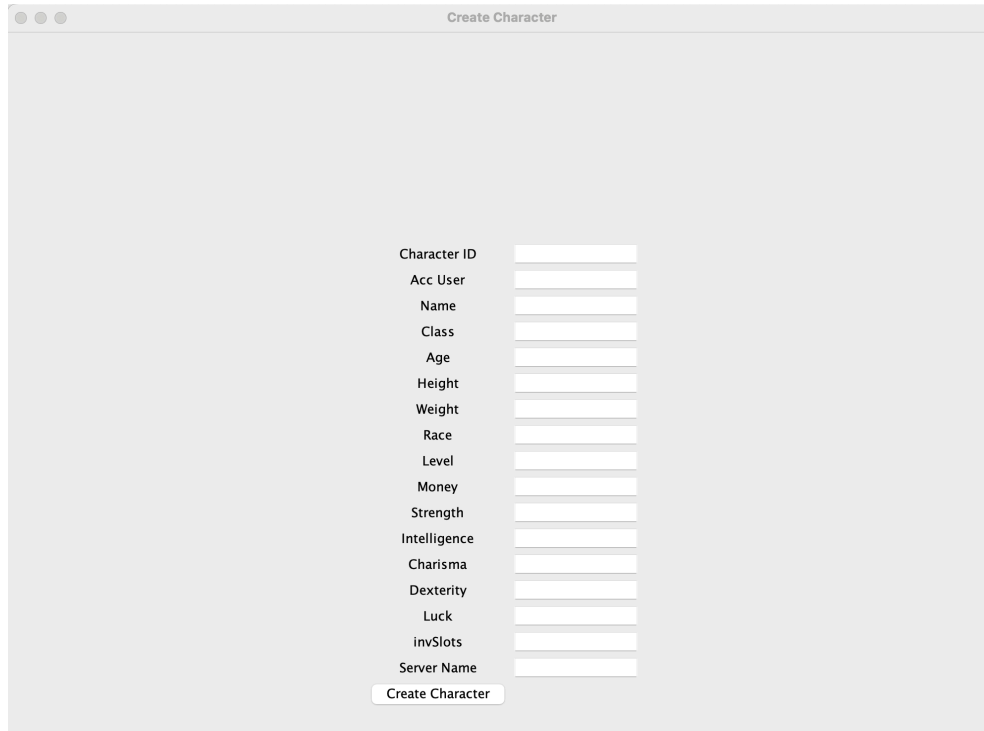
5 rows ∨ | Tx: Manual ∨ ✓ ↺ | DDL Q

WHERE ORDER BY

	ACC_USER	SLOTNUM	STACKS	ITEMNAME	ITEMTYPE
1	test	1	1	stone	raw_material
2	test	2	1	health potion (sm)	potion
3	test	3	1	wood	raw_material
4	test	4	1	iron ore	raw_ore
5	test	5	1	leather boots	foot

6) Query examples:

INSERT

code: AdminViewPageDBHandler Lines 467-496

before

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	ID	ACC_USER	NAME	CLASS	AGE	HEIGHT	WEIGHT
1	TEST1	test	char_mage	mage	20	185	
2	TEST2	test	char_warrior	warrior	200	230	
3	TEST3	test	char_pirate	pirate	95	90	
4	TEST4	test	char_mage	mage	26	150	
5	TEST5	test	char_thief	thief	26	150	
6	ADMIN1	admin	char_mage	mage	26	170	
7	ADMIN2	admin	char_warrior	warrior	94	223	
8	ADMIN3	admin	char_pirate	pirate	64	84	
9	ADMIN4	admin	char_mage	mage	26	150	
10	ADMIN5	admin	char_warrior	warrior	38	144	
11	FRIEND11	friend1	maggie	warrior	65	154	
12	FRIEND12	friend1	warren	pirate	200	230	
13	FRIEND13	friend1	pete	thief	95	90	
14	FRIEND14	friend1	miran	mage	26	150	
15	FRIEND15	friend1	thomas	thief	26	150	
16	FRIEND21	friend2	jerry	mage	66	165	
17	FRIEND22	friend2	morty	mage	154	240	
18	FRIEND23	friend2	rick	mage	50	89	
19	FRIEND24	friend2	summer	mage	22	130	
20	FRIEND25	friend2	beth	mage	36	125	
21	ANDREW1	andrew	bob	pirate	18	192	
22	ANDREW2	andrew	linda	warrior	134	222	
23	ANDREW3	andrew	louis	pirate	81	81	
24	ANDREW4	andrew	gene	pirate	68	132	
25	ANDREW5	andrew	tina	thief	22	162	

during:

Create Character

Character ID	1234234
Acc User	admin
Name	bob
Class	pirate
Age	15
Height	100
Weight	50
Race	human
Level	10
Money	10
Strength	10
Intelligence	10
Charisma	10
Dexterity	10
Luck	10
invSlots	20
Server Name	US_W_america_1

Create Character

after:

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	ID	ACC_USER	NAME	CLASS	AGE	HEIGHT	WEIGHT
10	ADMIN10	admin	char_warrior	warrior	30	144	
11	FRIEND11	friend1	maggie	warrior	65	154	
12	FRIEND12	friend1	warren	pirate	200	230	
13	FRIEND13	friend1	pete	thief	95	90	
14	FRIEND14	friend1	miran	mage	26	150	
15	FRIEND15	friend1	thomas	thief	26	150	
16	FRIEND21	friend2	jerry	mage	66	165	
17	FRIEND22	friend2	morty	mage	154	240	
18	FRIEND23	friend2	rick	mage	50	89	
19	FRIEND24	friend2	summer	mage	22	130	
20	FRIEND25	friend2	beth	mage	36	125	
21	ANDREW1	andrew	bob	pirate	18	192	
22	ANDREW2	andrew	linda	warrior	134	222	
23	ANDREW3	andrew	louis	pirate	81	81	
24	ANDREW4	andrew	gene	pirate	68	132	
25	ANDREW5	andrew	tina	thief	22	162	
26	1234234	admin	bob	pirate	15	100	

DELETE:

code: AdminViewPageDBHandler Lines 140-154
before:

USERNAME	ISVERIFIED	PASSWORD	EMAIL	INVSLOTS
1 admin	1	admin	123@fake.com	150
2 test	1	test	11@fake.ca	150
3 friend1	1	test	12@fake.ca	150
4 friend2	0	test	31@fake.ca	150
5 andrew	1	password	andrew@gmail.com	150

Add Account:
UserName: Password: Email: Add Account
Update Account Email
UserName: admin   Email: Update Account Email
Update Account Password
UserName: admin   Password: Update Account Password
DeleteAccount:
admin   DeleteAccount

during:

Add Account:
UserName: Password: Email: Add Account
Update Account Email
UserName: admin   Email: Update Account Email
Upd   ssword
  admin
  andrew
  friend1   admin   Password: Update Account Password
  friend2
 √ test   DeleteAccount

after:

USERNAME	ISVERIFIED	PASSWORD	EMAIL	INVSLOTS
1 admin	1	admin	123@fake.com	150
2 friend1	1	test	12@fake.ca	150
3 friend2	0	test	31@fake.ca	150
4 andrew	1	password	andrew@gmail.com	150

UPDATE:

code: AdminViewPageDBHandler Lines 177-209
before:

USERNAME	ISVERIFIED	PASSWORD	EMAIL	INVSLOTS
1 admin	1	admin	123@fake.com	150
2 friend1	1	test	12@fake.ca	150
3 friend2	0	test	31@fake.ca	150
4 andrew	1	password	andrew@gmail.com	150

During:

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Add Account:
UserName: [   ]   Password: [   ]   Email: [   ]   [Add Account]
Update Account Email
UserName: [admin ⬍]   Email: [admin@gmail.com]   [Update Account Email]
Update Account Password
UserName: [admin ⬍]   Password: [   ]   [Update Account Password]
DeleteAccount:
[admin ⬍]   [DeleteAccount]
[Retrieve Accounts]

Add Account:
UserName: [   ]   Password: [   ]   Email: [   ]   [Add Account]
Update Account Email
UserName: [admin ⬍]   Email: [   ]   [Update Account Email]
Update Account Password
UserName: [admin ⬍]   Password: [admin123]   [Update Account Password]
DeleteAccount:
[admin ⬍]   [DeleteAccount]
[Retrieve Accounts]

After:

Message

Success!

[OK]

Add Account:
UserName: [   ]   Password: [   ]   Email: [   ]   [Add Account]
Update Account Email
UserName: [admin ⬍]   Email: [admin@gmail.com]   [Update Account Email]
Update Account Password
UserName: [admin ⬍]   Password: [   ]   [Update Account Password]
DeleteAccount:
[admin ⬍]   [DeleteAccount]
[Retrieve Accounts]

	USERNAME	ISVERIFIED	PASSWORD	EMAIL	INVSLOTS
1	admin	1	admin	admin@gmail.com	150
2	friend1	1	test	12@fake.ca	150
3	friend2	0	test	31@fake.ca	150
4	andrew	1	password	andrew@gmail.com	150

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Add Account:

UserName: [   ] Password: [   ] Email: [   ] [Add Account]

Update Account Email

UserName: [admin ⇕] Email: [   ] [Update Account Email]

Update Account Password

UserName: [admin ⇕] Password: [admin123] [Update Account Password]

DeleteAccount:

[admin ⇕] [DeleteAccount]

[Retrieve Accounts]

Message

Success!

[OK]

	USERNAME ⧩	ISVERIFIED ⧩	PASSWORD ⧩	EMAIL ⧩	INVSLOTS ⧩
1	admin	1	admin123	admin@gmail.com	150
2	friend1	1	test	12@fake.ca	150
3	friend2	0	test	31@fake.ca	150
4	andrew	1	password	andrew@gmail.com	150

SELECTION:

Code: AdminViewDBHandler Lines: 211-247

before:

	ID ⧩	ACC_USER ⧩	NAME ⧩	CLASS ⧩	AGE ⧩	HEIGHT ⧩	WEIGHT ⧩
1	ADMIN1	admin	char_mage	mage	26	170	85
2	ADMIN2	admin	char_warrior	warrior	94	223	62
3	ADMIN3	admin	char_pirate	pirate	64	84	142
4	ADMIN4	admin	char_mage	mage	26	150	100
5	ADMIN5	admin	char_warrior	warrior	38	144	86
6	FRIEND11	friend1	maggie	warrior	65	154	79
7	FRIEND12	friend1	warren	pirate	200	230	60
8	FRIEND13	friend1	pete	thief	95	90	150
9	FRIEND14	friend1	miran	mage	26	150	100
10	FRIEND15	friend1	thomas	thief	26	150	100
11	FRIEND21	friend2	jerry	mage	66	165	78
12	FRIEND22	friend2	morty	mage	154	240	55
13	FRIEND23	friend2	rick	mage	50	89	135
14	FRIEND24	friend2	summer	mage	22	130	75
15	FRIEND25	friend2	beth	mage	36	125	91
16	ANDREW1	andrew	bob	pirate	18	192	88
17	ANDREW2	andrew	linda	warrior	134	222	62
18	ANDREW3	andrew	louis	pirate	81	81	181
19	ANDREW4	andrew	gene	pirate	68	132	34
20	ANDREW5	andrew	tina	thief	22	162	94

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after:

Projection

AdminViewPage Lines 78-134, AdminViewPageDBHandler Lines 55-91
During:

After:

Join:

code: AdminViewPageDBHandler lines: 368-395
This query joins the characters and equipped table to find the equipment used by a particular class of character. This would be useful for developers trying to figure out what the player basis

is biased towards in regards to equipment, in short quickly finding stats about the current "meta" builds players are utilizing.

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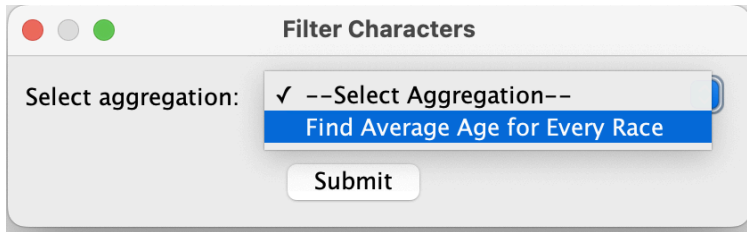
ID	NAME	CLASS	EQTYPE	EQNAME
ADMIN1	char_mage	mage	head	basic helmet
TEST1	char_mage	mage	head	basic helmet
ADMIN1	char_mage	mage	foot	leather boots
TEST1	char_mage	mage	foot	leather boots
TEST1	char_mage	mage	hand	leather gloves
TEST1	char_mage	mage	chest	leather tunic

Aggregation with Group by:

code AdminViewPageDBHandler lines 249-258

This "Aggregation with group by" averages the average age for our characters' races, the same principle can be applied to the other character attributes to give the developers an idea of how their player base likes to design characters of particular races giving insight into the roleplaying aspect of the player base.
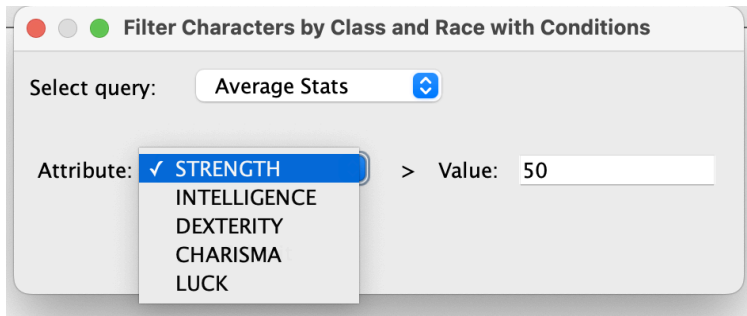
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During:

Filter Characters

Select aggregation: | ✓ --Select Aggregation--
Find Average Age for Every Race

Submit

After:

RACE	AVG(AGE)
dwarf	72.5
elf	145.5
halfling	35.5
human	37.125

Aggregation with Having:

Code: AdminViewPageDBHandler Lines 260-272

During:

Filter Characters by Class and Race with Conditions

Select query: Average Stats

Attribute: | ✓ STRENGTH
INTELLIGENCE
DEXTERITY
CHARISMA
LUCK

> Value: 50

After:

RACE	CLASS	AVG(LVL)	AVG(STRENGTH)	AVG(INTELLIGENCE)	AVG(DEXTERITY)	AVG(CHARISMA)	AVG(LUCK)
elf	warrior	35.5	79.5	15	39	19	15
human	warrior	29.5	83.5	12.5	55	33	36

Nested Aggregation with Group By:

code: AdminViewPageDBHandler lines 275-288

The nested aggregation with group by finds the individual class with the smallest or biggest average height by grouping by class with average height and then selecting the class with the min or max avg height.
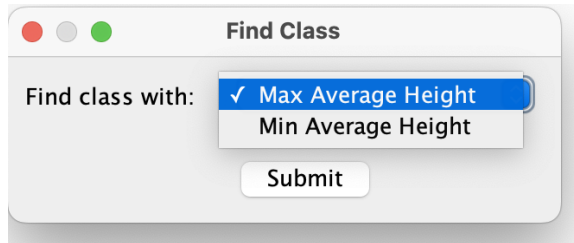
This info would be useful for the developers in understanding the player base's leaning to

cosmetics in regards to a particular class. ie, do a lot of people play short thieves or tall warriors?
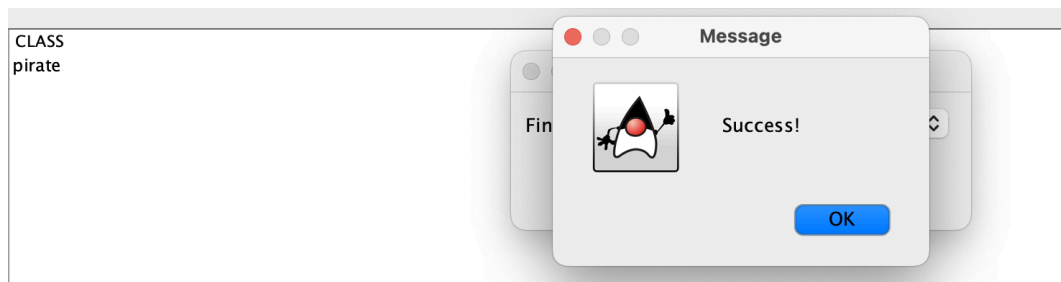
During:

After:

max height:

min height:

Division:

Code: AdminViewPageDbHandler lines 437-445

The division statement we chose was to query the equipment table for all unique types of equipment and then match that against the equipped table to find all characters with all types of equipment equipped. This would be useful from a dev's pov if we wanted to query for a specific set of equipment say find all characters with the "wizards set" equipped

Results:

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ID	NAME
TEST1	char_mage
TEST2	char_warrior
ANDREW1	bob